AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for producing a synchronized population of conifer somatic embryos, the method comprising the step of cultivating pre-cotyledonary conifer embryogenic cells in, or on, a synchronization medium that comprises an absorbent composition and at least one synchronization agent selected from the group consisting of abscisic acid and a gibberellin, wherein the absorbent composition and the at least one synchronization agent are present at a concentration effective to produce a synchronized population of pre-cotyledonary conifer somatic embryos.

2. (Original) The method of Claim 1 wherein the absorbent composition is selected from the group consisting of activated charcoal, soluble poly(vinyl pyrrolidone), insoluble poly(vinyl pyrrolidone), activated alumina, and silica gel.

3. (Original) The method of Claim 2 wherein the absorbent composition is activated charcoal.

4. (Original) The method of Claim 1 wherein the concentration of the absorbent composition in the synchronization medium is from about 0.5 g/L to about 50 g/L.

5. (Original) The method of Claim 1 wherein the absorbent composition is activated charcoal, and the activated charcoal is present in the synchronization medium at a concentration in the range of from about 0.1 g/L to about 5 g/L.

6. (Original) The method of Claim 1 wherein the absorbent composition is activated charcoal, and the activated charcoal is present in the synchronization medium at a concentration in the range of from about 0.5 g/L to about 1 g/L.

7. (Original) The method of Claim 1, wherein abscisic acid is used as a synchronization agent.

8. (Original) The method of Claim 1, wherein a gibberellin is used as a synchronization agent.

9. (Original) The method of Claim 1, wherein abscisic acid and at least one gibberellin are used as synchronization agents.

10. (Original) The method of Claim 1, wherein a gibberellin is present in the synchronization medium at a concentration of from about 0.5 mg/L to about 500 mg/L.

11. (Original) The method of Claim 1, wherein a gibberellin is present in the synchronization medium at a concentration of from about 1.0 mg/L to about 100 mg/L.

12. (Original) The method of Claim 1, wherein abscisic acid is present in the synchronization medium at a concentration of from about 1.0 mg/L to about 500 mg/L.

13. (Original) The method of Claim 1, wherein abscisic acid is present in the synchronization medium at a concentration of from about 0.5 mg/L to about 20 mg/L.

14. (Original) The method of Claim 1, wherein the conifer embryogenic cells are cultured in, or on, the synchronization medium for a period of from about 0.5 weeks to about 5 weeks.

15. (Original) The method of Claim 1, wherein the conifer embryogenic cells are cultured in, or on, the synchronization medium for a period of from about 1 week to about 3 weeks.

16. (Original) The method of Claim 1, wherein the conifer embryogenic cells are cultured in, or on, the synchronization medium for a period of from about 1 week to about 2 weeks.

17. (Original) The method of Claim 1, wherein the osmolality of the synchronization medium is from about 90 mM/Kg to about 300 mM/Kg.

18. (Original) The method of Claim 1, wherein the pH of the synchronization medium is from about 5 to about 6.

19. (Original) The method of Claim 1, wherein Loblolly pine somatic embryos are produced from Loblolly pine embryogenic cells.

20. (Original) The method of Claim 1, wherein at least 50% of the embryos in the synchronized population of conifer somatic embryos are at the same developmental stage.

21. (Original) The method of Claim 1, wherein at least 75% of the embryos in the synchronized population of conifer somatic embryos are at the same developmental stage.

22. (New) The method of Claim 1, wherein the synchronized population of pre-cotyledonary conifer somatic embryos are transferred to a development medium for synchronized cotyledonary embryo development.